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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/676,401

10/01/2003

Martin C. Zieger

6741P001

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02/01/2011

SAP/BSTZ

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EXAMINER

SHEIKH, ASFAND M

ART UNIT

PAPER NUMBER

3627

MAIL DATE

DELIVERY MODE

02/01/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/676,401	ZIEGER, MARTIN C.	
	Examiner	Art Unit	
	Asfand Sheikh	3627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-33 is/are pending in the application.
- 4a) Of the above claim(s) 12-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

In view of the Appeal Brief filed on 10/18/2010, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/F. Ryan Zeender/

Supervisory Patent Examiner, Art Unit 3627.

Response to Arguments

Applicant's arguments, see Appeal Brief, filed 10/18/2010, with respect to the rejection(s) of claim(s) 1-6 and 8-11 under 35 U.S.C. 103 under Benda et al. (US 6,937,992 B1) in view of Cappellini (US 2003/0014286 A1) and Itschner (US 3,970,832) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of 35 U.S.C. 103 under Benda et al. (US 6,937,992 B1) in view of Cappellini (US 2003/0014286 A1) and Huang et al. (US 6,321,363 B1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benda et al. (US 6,937,992 B1) in view of Cappellini (US 2003/0014286 A1) and Huang et al. (US 6,321,363 B1).

Claims 1, 3, 5, 8, 9, and 10

Benda discloses comprising: receiving a demand order including a set of products to be shipped (see at least, abstract and col. 4, lines 28-39 and col. 5, lines 41-63).

Benda fails to disclose simulating a loading of a shipment of the set of products into a set of transports; evaluating a shipping rule for the shipment, the shipping rule is permitted to be a complex logical statement; and attempting to fill each transport in the set in simulating the loading of the shipment and further evaluating a constraint during the simulation and detecting a skipping of a range of the constraint and adjusting the simulating of the loading of the shipment in response to the skipping.

Cappellini discloses disclose simulating a loading of a shipment of the set of products into a set of transports (see at least, [0182]); evaluating a shipping rule for the shipment, the shipping rule is permitted to be a complex logical statement (see at least, [0170] and [0188]); and attempting to fill each transport in the set in simulating the loading of the shipment (see at least, [0189]); and performing related steps by a computer (see at least, abstract); [claim 3] wherein the complex logical statement is defined by a user (see at least, [0189]: various rules defined by a user); [claim 5] further comprising: downsizing the shipment to match a maximum capacity of the transport (see at least, [0183] and [0189]); [claim 8 and 10] wherein simulating includes incrementing an amount of a first product in the shipment by one shipping unit (see at least, [0182]: the examiner notes the use of a mathematical model that would adjust as necessary to fit a given rule (e.g. add, subtract, etc); [claim 9] wherein the shipping unit is a pallet (see at least, [185]).

It would have been obvious to one of ordinary skill in the art to modify the teachings of Benda's vehicle capacity maximization to include simulating a loading of a shipment of the set of products into a set of transports; evaluating a shipping rule for the

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shipment, the shipping rule is permitted to be a complex logical statement; and attempting to fill each transport in the set in simulating the loading of the shipment as taught by Cappellini. One of ordinary skill in the art would have been motivated to combine the teachings in order to used for the sole simple use of determining the availability of space or capacity for a required transport vehicle (see at least, Cappellini, [0183]).

Huang discloses evaluating a constraint during the simulation and detecting a skipping of a range of the constraint and adjusting the simulating in response to the skipping (see at least, col. 7, lines 31-37: the examiner notes invariant blocks are interpreted to be constrains that are evaluated and detected and are not re-computed during simulation (e.g. adjusted)).

It would have been obvious to one of ordinary skill in the art to modify the teachings of Benda's vehicle capacity maximization to include evaluating a constraint during the simulation and detecting a skipping of a range of the constraint and adjusting the simulating in response to the skipping as taught by Huang. One of ordinary skill in the art would have been motivated to combine the teachings in order to provide computer aided verification via the use of simulation (see at least, Huang, col. 1, lines 1-10).

Claims 2

Benda discloses further comprising: simulating one of a balanced load and a straight load of the shipment in the transport (see at least, col. 5, lines 15-57: the examiner

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notes straight loading is used: one shipment then building on the one shipment with another shipment).

Claims 4

Benda discloses further comprising: upsizing the shipment to fill the transport (see at least, col. 5, lines 15-57: the examiner notes straight loading is used: one shipment then building on the one shipment with another shipment).

Claims 6

Benda discloses wherein the shipping rules include at least one constraint including one of a weight constraint, a volume constraint, and a product combination constraint (see at least, col. 5, lines 15-57: the examiner notes the use of a volume constraint to maximize a vehicle capacity).

Claims 11

Benda discloses further comprising: attempting to fill at least one transport, the at least one transport having multiple destinations (see at least, col. 5, lines 15-57: the examiner notes attempting to fill the transport via the use of multiple destinations).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Asfand Sheikh whose telephone number is (571)272-1466. The examiner can normally be reached on 9a-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ryan Zeender can be reached on (571)272-6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Asfand Sheikh/
Examiner, Art Unit 3627
1/17/2011

/F. Ryan Zeender/
Supervisory Patent Examiner, Art Unit 3627